Advancing the Practice of State Aviation System Planning

September 21, 2023

12:00pm-1:30pm

NATIONAL ACADEMIES Sciences Engineering Medicine

TRB TRANSPORTATION RESEARCH BOARD

ACRP AIRPORT COOPERATIVE RESEARCH PROGRAM

Today's Learning Objectives

(1) Understand the basic elements of a SASP and the role of state planning in connecting local and national planning efforts

(2) Explore how stakeholders can utilize the considerations provided in the report to help them scope, develop, and implement a successful SASP

(3) Gain insight into how the unique needs of individual states may impact the development of a SASP

American Association of Airport Executives (AAAE)

1.0 Continuing Education Units (CEUs) are available to Accredited Airport Executives (A.A.E.)

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AICP Credit Information

1.5 American Institute of Certified Planners Certification Maintenance Credits

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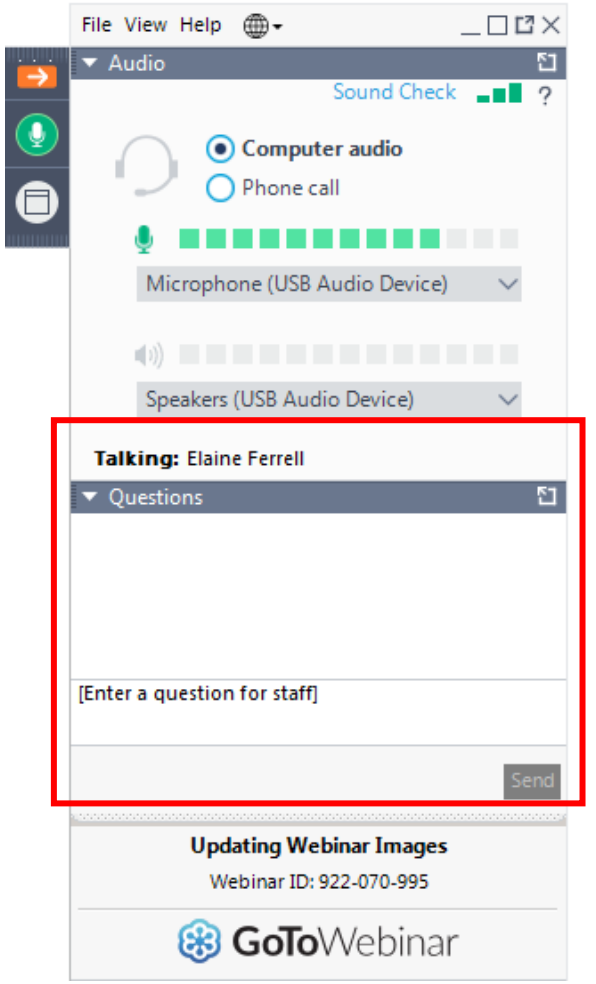
Questions and Answers

Please type your questions into your webinar control panel

We will read your questions out loud, and answer as many as time allows

#TRBwebinar

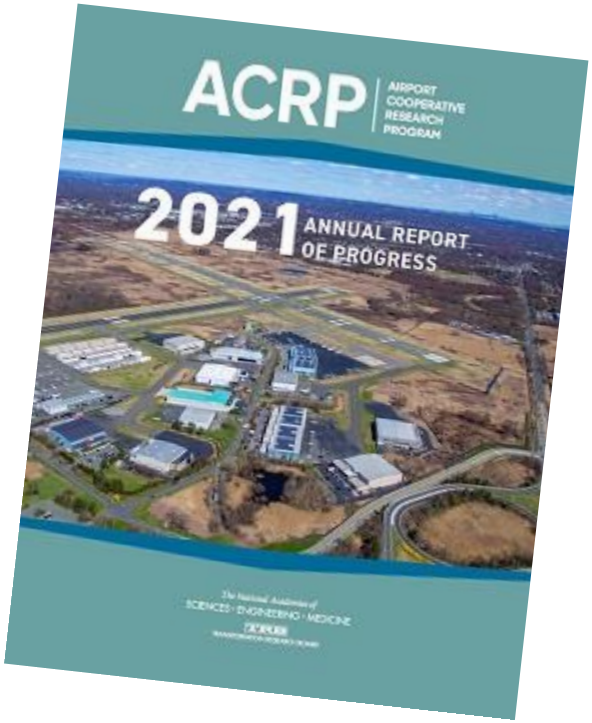


Moderator Name
Moderator Organization

- Mihir Shah lead Community Planner for the FAA's New York Airports District Office.
- He is a seasoned aviation planning professional with over 20 years of experience in both public-sector and consulting roles
- He has worked with facilities ranging from small general aviation airports to our busiest global hubs.
- He is currently a lead Community Planner for the FAA's New York Airports District Office

ACRP is an Industry–Driven Program

- Managed by TRB and sponsored by the Federal Aviation Administration (FAA).
- Seeks out the latest issues facing the airport industry.
- Conducts research to find solutions.
- Publishes and disseminates research results through free publications and webinars.



Today's Speakers

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ACRP 01-36: Advancing the Practice of State Aviation System Planning

TRB WEBINAR

SEPTEMBER 21ST, 2023

ACRP

Kimley»Horn

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Session Agenda

- ✈ Project Overview
- ✈ Project Purpose
- ✈ Project Execution
- ✈ Section 1: Scoping
- ✈ Section 2: Developing
- ✈ Section 3: Implementing
- ✈ Appendices
- ✈ Questions and Conclusions

Project Overview

Project Overview - Source

Problem statement submitted by NASAO membership

Project Overview - Team

Kimley»Horn

Marr Arnold
PLANNING

ASG
AIRPORT SOLUTIONS GROUP, LLC
Innovation By Design

EBP

Project Overview - Timeline

May 2019:
Project Kickoff

March 2021:
Completion

December 2022:
Publication Date

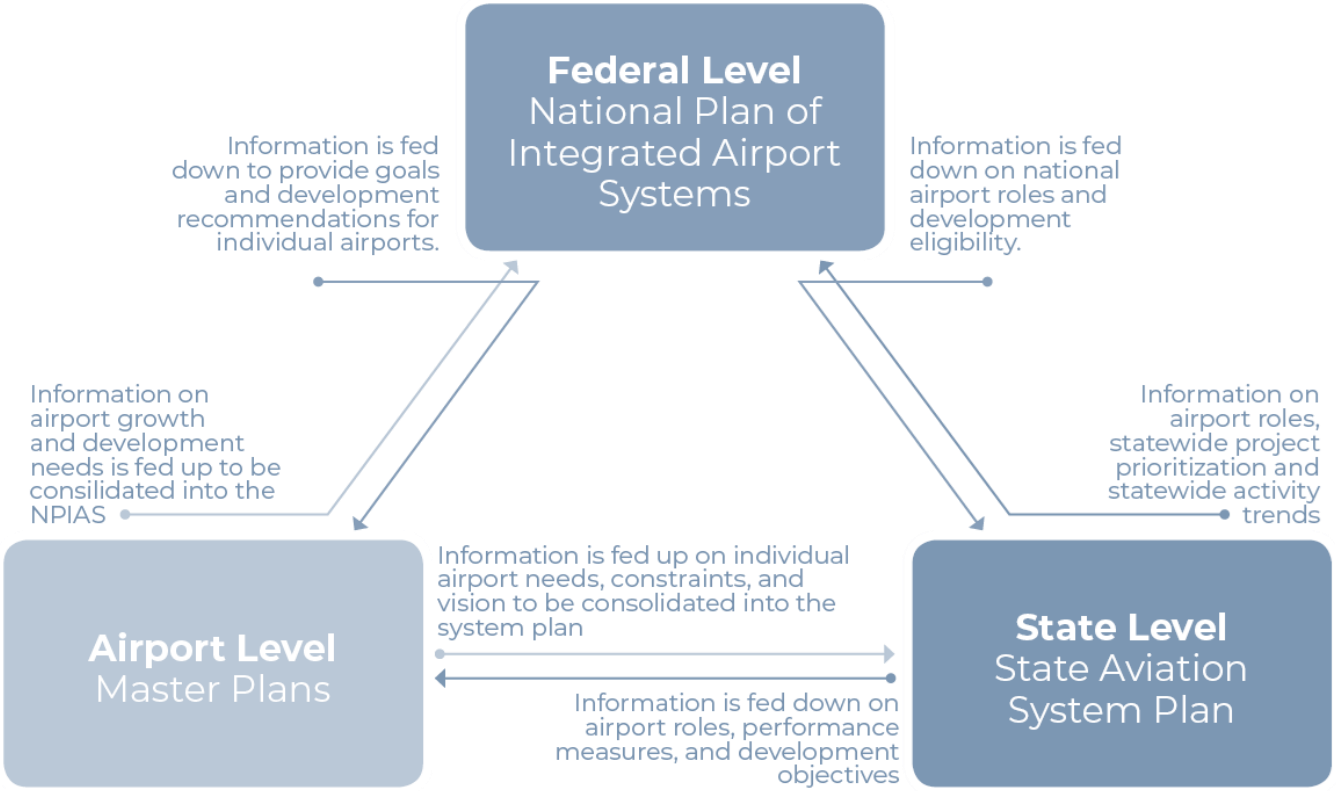
Project Purpose

Project Purpose

National-Level Planning

State Aviation System Plans

Airport-Level Planning



Project Purpose - Objectives

Objectives

- Develop guidebook for scoping, developing, and implementing SASPs
- Complement and build upon guidance in FAA AC 150/5070-7
- Offer insight on ways SASPs can be tailored to meet specific needs and government structures

Project Execution

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Project Execution

✈ Research and Data Collection

Project Execution

- ✈ Research and Data Collection
- ✈ Industry Outreach

Project Execution

- ✈ Research and Data Collection
- ✈ Industry Outreach
- ✈ Guidebook Concept

Project Execution

- ✈ Research and Data Collection
- ✈ Industry Outreach
- ✈ Guidebook Concept
- ✈ Industry Testing

Project Execution

- ✈ Research and Data Collection
- ✈ Industry Outreach
- ✈ Guidebook Concept
- ✈ Industry Testing
- ✈ Final Development and Publication

Research and Data Collection

Task Summary

- Existing SASPs
- FAA publications, ACRP reports, TRB reports, and more

Key Findings

- Similar core components
- Variances in funding, time, and applicability
- Little guidance beyond AC

Industry Outreach

Task Summary

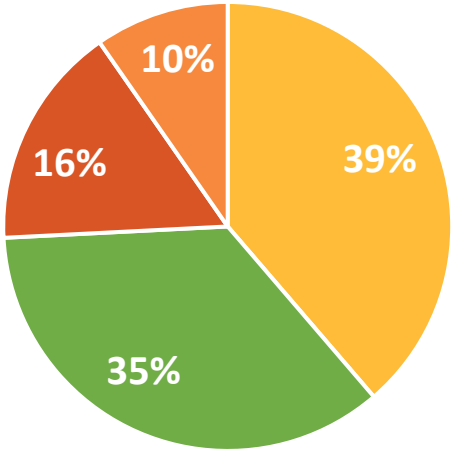
- NASAO Survey (34)
- TRB Committees (AV 010,020)
- Industry organizations
- Case Studies (5)

Key Findings

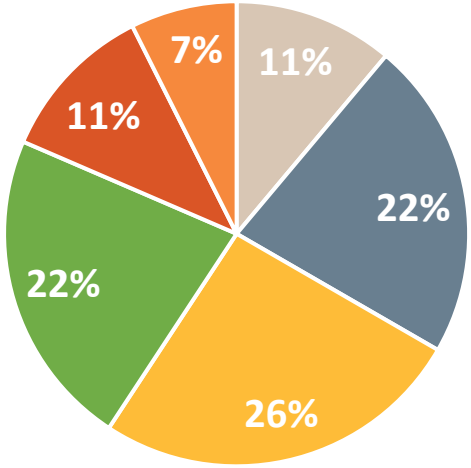
- Research reaffirmed
- Takeaways re: funding/budget, integration/recommendations, shortfalls, and directors' advice

Industry Outreach – Example Response

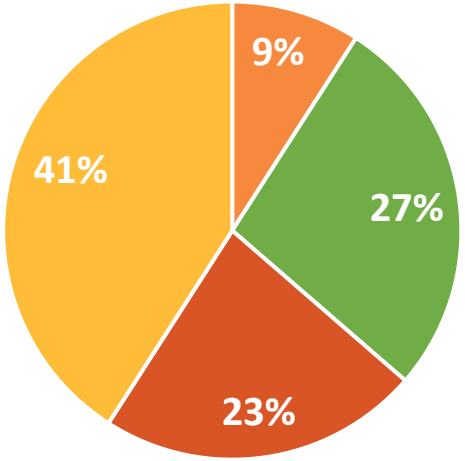
Scoping Timeframe



Developing Timeframe



Implementation Timeframe



What Did We Learn?
Let's Take a Look at Some Stats...

Scoping

- 83% were funded via AIP grants with matching state funds
- 89% included non-NPIAS airports and it impacted funding eligibility of the SASP for 19% of those states
- The average budget for a SASP was approximately $700,000

Developing

- 33% included site visits at ALL airports, 42% at some airports, and 25% of SASPs included no site visits
- 75% included an Advisory Committee
- 64% of states used continuous planning practices in their most recent SASP

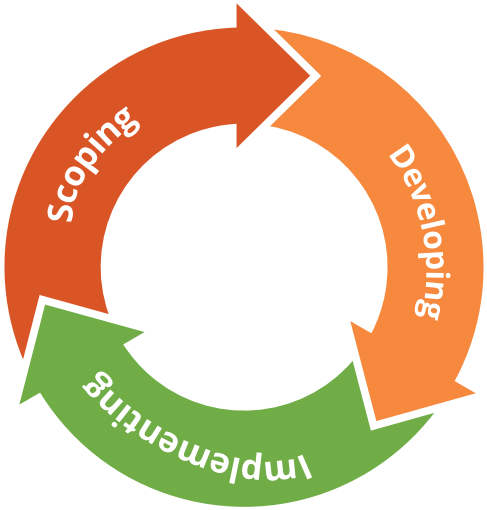
Implementing

- 66% were used to establish funding or project priorities
- On a scale of 1-10 of how useful the SASP is, the average score was 6.5
- 44% of states reported referencing their SASP monthly, 28% reported weekly and yearly use, and 6% reported never using it

Guidebook Concept & Example Topics

Scoping:
- Understanding your state's needs
- Understanding Federal guidance
- Understanding your budget
- RFQs, RFPs, and contractor selection

Implementing:
- Rolling out to stakeholders
- Integrating with other plans
- Maintaining inventory database
- Educating decision-makers
- Implementing agency recommendations



Developing:
- Engaging Stakeholders
- Setting goals and objectives
- Conducting a system inventory
- Classifying airport roles
- Exploring aviation issues
- Forecasting aviation activity
- Determining system performance
- Identifying system needs

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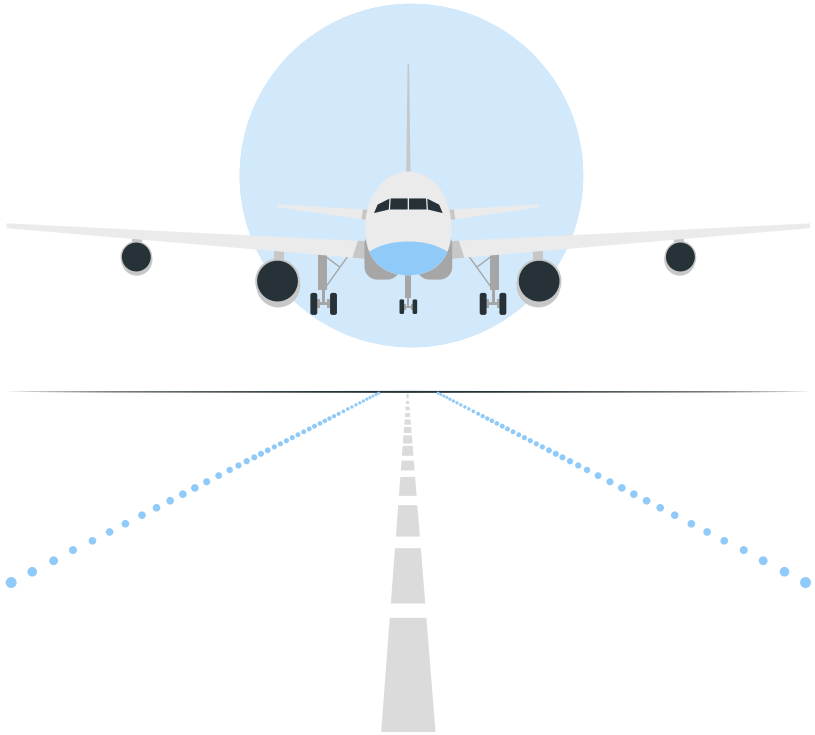
Industry Testing

State Aviation Agencies

Airport Managers

Industry Organizations



Final Development and Publication

User-Friendly

- Voice
- Organization
- Visual queues

Practical

- Easy to read
- Full of examples/context
- Focused on the “need to know”

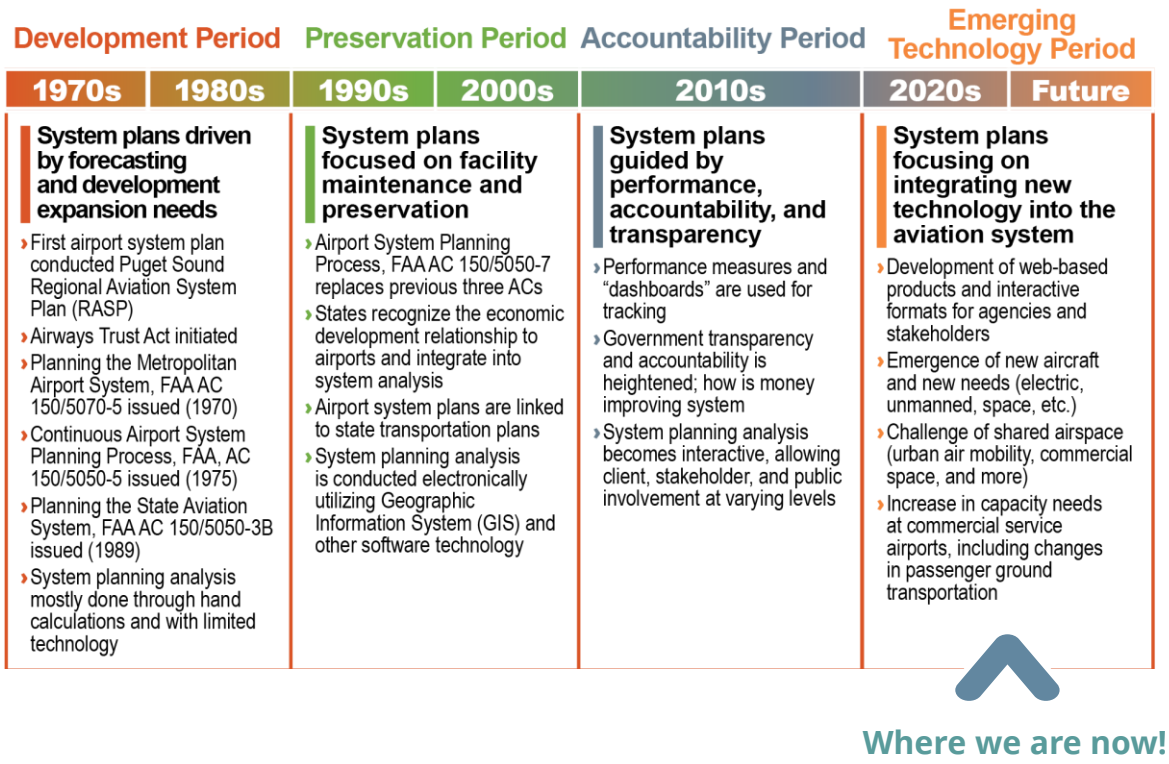
What Will You Find?

Guidebook TOC

- ✈ Introduction
- ✈ Section 1: Scoping
- ✈ Section 2: Developing
- ✈ Section 3: Implementing
- ✈ Appendices

Introduction

- A brief history of SASP evolution
- Role of state aviation agencies
- Guidebook tutorial



Introduction

- A brief history of SASP evolution
- Role of state aviation agencies
- Guidebook tutorial

VALUE: Used to determine existing conditions and evaluate system objectives

COST: $$–$$$$

TIME: 

REQUIRED/RECOMMENDED: Required

REFERENCE

FAA Order 5100.38D, *Airport Improvement Program (AIP) Handbook*

LINK

More considerations for incorporating existing commercial service airport economic impact findings into a systemwide study is provided in **Appendix F**.

STATE EXAMPLE

The 2007 New Jersey State Airport System Plan included an assessment of design standards, including runway-taxiway separation, runway safety area (RSA) compliance, and more.

= References

- Inserted throughout document to offer additional resources to the reader
- Directs readers to materials external to the Guidebook, or areas within the Guidebook, to help them learn more.

REFERENCE

FAA Order 5100.38D, *Airport Improvement Program (AIP) Handbook*

Directs reader to an appendix that features example SASP RFQs and RFPs to aid in their development.

1.4.2 Developing the Solicitation

Once the timing is known, the requirements or expectations of the solicitation need to be determined. Some states prefer to select a consultant purely on the basis of qualifications and therefore only utilize an RFQ. Consultants then submit a statement of qualifications based on the RFQ that focuses on their experience to conduct the project. Others

REFERENCE

See **Appendix A** for example SASP RFPs and RFQs.

Directs reader to another ACRP publication that provides further details regarding wildlife hazards at GA airports

- **Wildlife hazard assessments**: The SASP may provide you with the opportunity to include wildlife hazard assessments or mitigation plans at a portion of your system airports. These plans outline responsibilities, policies, and procedures necessary to reduce wildlife hazards at airports.

REFERENCE

ACRP Report 32: *Guidebook for Addressing Aircraft/Wildlife Hazards at General Aviation Airports*

= Links

- Identifies elements and topics that are related
- Supports a more comprehensive understanding of the nuanced considerations of scoping, developing, and implementing a SASP
- Many of these links are specific to links between a SASP and an Aviation Economic Impact Study (AEIS), which are commonly conducted concurrently.

LINK

More considerations for incorporating existing commercial service airport economic impact findings into a systemwide study is provided in **Appendix F.**

A link suggesting consideration of incorporating goals of companion studies

The statements included in the FAA guidance generally address:

- Timely airport development
- Safety, reliability, and efficiency
- Maximization of economic benefits
- Multimodal connectivity
- Minimization of environmental impact
- Meeting long-range needs

LINK

Consider incorporating goals of any companion studies, such as an AEIS or a land use study to further link the studies together.

= Task Quick Stats

- Featured at the beginning of each SASP task section
- Provides high-level overview of the value of the task to a SASP, estimated cost, estimated time and FAA requirement

VALUE: Used to determine existing conditions and evaluate system objectives

COST: $$–$$$$

TIME:

REQUIRED/RECOMMENDED: Required

2.1.1 Project Branding and Advertising

Until recently, project branding was not given much consideration or budget in the system planning scoping process. State directors and practitioners have found that dedicated branding efforts can provide value, especially when engaging the greater public. Developing a brand identity package often includes a project logo and style guidelines that provide a visual link between all study documents. Areas you may consider using project branding include:

- A project website (**Section 2.1.3**)
- Social media

VALUE: Cohesive look and feel to your project, public recognition

COST: $

TIME:

REQUIRED/RECOMMENDED: Recommended

2.1.2 Advisory Committees

One of the most common stakeholder engagement tools employed for system plan projects is the establishment of an advisory committee. In general, committees are made up of aviation or related industry professionals that represent the diverse nature of system planning. Stakeholders to consider when curating committee membership include, but are not limited to, the following:

- Airport managers representing commercial and general aviation (GA) airports, airports in urban and rural areas, and privately-owned airports (if included in your SASP)
- State aeronautics commissioners or board members

VALUE: Additional perspectives, stakeholder buy-in, information dissemination

COST: $$ (less if done virtually but feedback may be reduced)

TIME:

REQUIRED/RECOMMENDED: A form of public consultation is required.

= State Examples

- Offers examples of what other states have done for their SASP as it relates to the section being presented
- Showcases the diversity of SASPs and highlights unique examples

STATE EXAMPLE

The 2007 New Jersey State Airport System Plan included an assessment of design standards, including runway-taxiway separation, runway safety area (RSA) compliance, and more.

An example of a state (AZ) that compares performance from previous SASP iterations.

2.6.2.1 Comparing Results Between Plans

If your SASP is considered an update and/or there are previous analyses that you have chosen to carry over, whether all or only some of the same objectives into your new SASP, then there may be value in showing a comparison of performance between years. Comparing current and historical performance levels will help pinpoint where the system has improved and where there are opportunities for future investments (also helpful in the prioritization and recommendation stages). However, keep in mind it is not always as easy as it would seem to compare

STATE EXAMPLE

The 2018 Arizona SASP Update compares current system performance to that from the 2008 SASP for objectives that were carried over from the previous plan. The results are displayed in tabular format for easy comparison and identification of progress.

2.3.1 Setting your Classifications

There is no "gold standard" or right and wrong for developing airport roles. Each state is different, each system is different, and each state aviation agency has different priorities when it comes to defining airport classifications and assigning roles. Most states use one of three methods, (1) adopt National Plan of Integrated Airport Systems (NPIAS) roles, (2) define unique roles specific to their state, or (3) create a hybrid system that considers NPIAS role criteria along with state customizations.

STATE EXAMPLE

New Hampshire adopted the NPIAS airport classifications for their NHSASP. This aligns with the airport classifications chosen for the New England Regional Aviation System Plan (NERASP).

An example of a state (NH) that adopted NPIAS classifications in their SASP.

Section 1: Scoping

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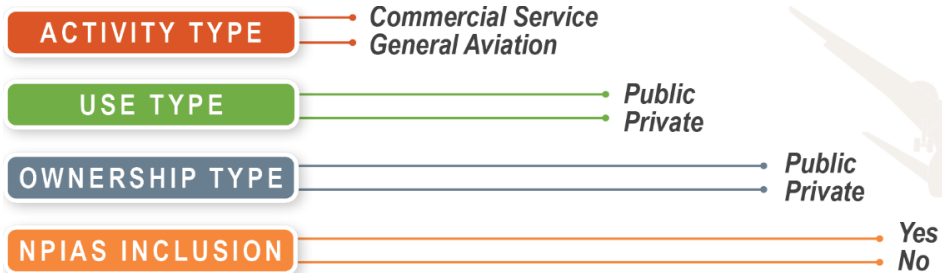
Section 1: Scoping

- Questions to ask yourself
- SASP timing and budget
- Issues to address
- Airports to include
- Federal guidance to reference
- RFPs and consultant selection
- … and more

- *Why do this study now?*
- *What questions should the study answer?*
- *What issues will the plan address?*
- *Which airports should be included in study?*
- *What level of stakeholder involvement is needed?*
- *How will the study's results be used?*
- *Should technology be utlilized?*
- *Should special studies be included in this effort?*



Section 1: Scoping

- Questions to ask yourself
- SASP timing and budget
- Issues to address
- Airports to include
- Federal guidance to reference
- RFPs and consultant selection
- … and more

FAA Advisory Circular – 150/5070-7 The Airport System Planning Process

- Last updated in 2015
- Provides guidance for effective airport system planning
- Documents minimum requirements for a SASP

FAA Involvement

- Engage with your FAA representatives EARLY
- Do you want their input on the project's advisory committee?
- Are you accepting federal grants to support your SASP?
- At minimum, the FAA must accept your system plan forecasts and it's important to understand reviewer's expectations.

Section 2: Developing

Section 2: Developing

- Ways to engage stakeholders
- Goal setting
- **Inventory collection**
- Airport classification
- Forecasting trends
- Aviation Issues (and Trends!)
- Deliverables

How will the data be collected?

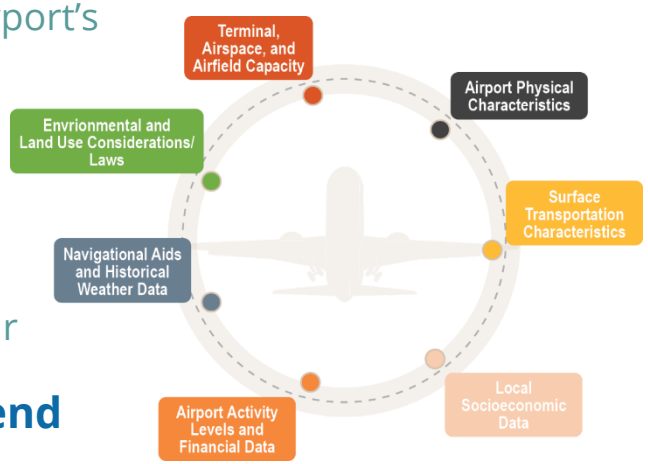
- In-person site visits
- Online or in-person surveying efforts
- Public data sources: TAF, 5010, OpsNet, FlightAware, and more
- Evolving Data Sources: Ex. new aircraft operation counting solutions

What will the data be used for?

- Only collect data necessary for the SASP to avoid additional effort on behalf of the airport's involved

What will be the data base year?

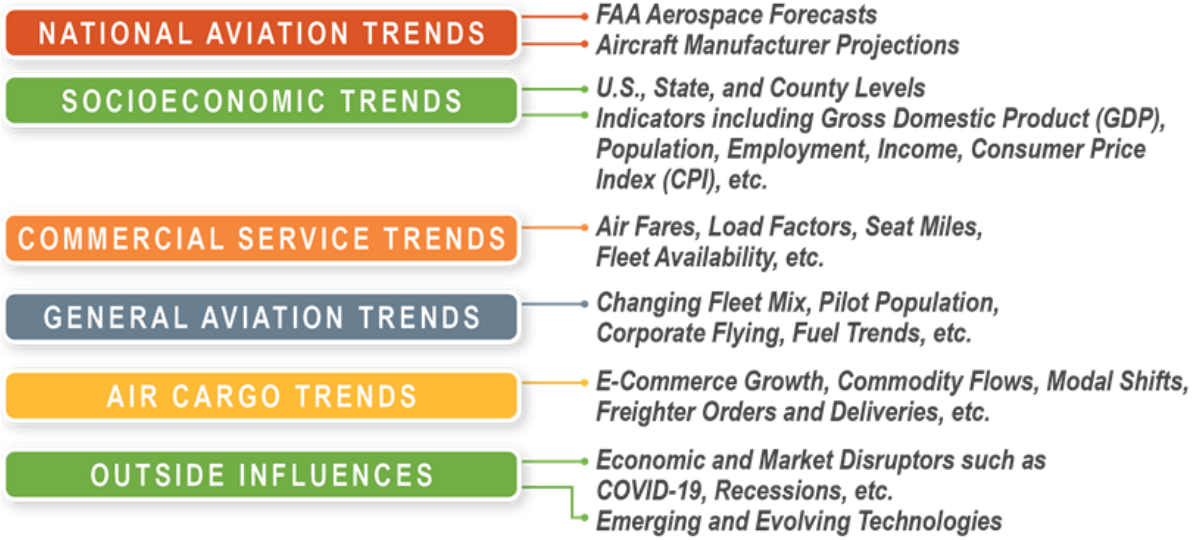
- Use most recent year of full data
- Use fiscal or calendar year



Accurate SASP findings depend on good data!

Section 2: Developing

- Ways to engage stakeholders
- Goal setting
- Inventory collection
- Airport classification
- **Forecasting trends**
- Aviation Issues (and Trends!)
- Deliverables



Some Considerations:

- Do you want to use existing master plan forecasts for commercial service airports?
- How do you want to treat military operations for joint-use facilities?
- Will you use airport-reported data or rely on public data sources?
- What activity indicators will you forecast?

Section 2: Developing

- Ways to engage stakeholders
- Goal setting
- Inventory collection
- Airport classification
- Forecasting trends
- **Aviation Issues (and Trends!)**
- Deliverables

- **Due to the timing of this publication there is little focus on advanced air mobility (AAM) but this may impact future system plans.**
- **AAM includes:**
  - Electrification of aircraft
  - Airspace requirements
  - Capability with existing operations
  - Location of vertiports/stops
  - And more…
- **Inclusion may depend on several factors:**
  - State licensing requirements
  - Interest in the topic from the state perspective
  - Exploring potential links to economic development opportunities
  - Emerging federal guidance
  - And more…

Section 2: Developing

- Ways to engage stakeholders
- Goal setting
- Inventory collection
- Airport classification
- Forecasting trends
- Aviation Issues (and Trends!)
- Deliverables

There are many different types of SASP deliverables:

- Technical Report
- Executive Summaries and Primers
- Airport Specific Brochures
- Presentations
- Data Management Tools
- Web-based Dashboards
  - Offer interactive solutions for readers to learn more about airports
  - Visually represent service area coverage
  - Present system performance charts and graphs
  - Tell the story about your state's airports
- Electronic Tools
  - Data collection and management tools
  - Project prioritization and selection tools
  - Calculators (if you're developing an economic impact study)

Section 3: Implementing

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Section 3: Implementing

- Stakeholder or decision maker rollout
- Continuous planning efforts
- Integration with other modal plans
- … and more

Target Audience	Technical Report	Executive Summary	Video	One-Page Fact Sheet	Presentations	Individual Airport/Regional Brochures	Newspaper Article/Blog Posts	Regional Meetings	Press Conferences	Social Media Blitz
Internal Transportation Agency	●	●								
External Transportation Agency		●	●	●	●					
Aeronautics Commission		●	●	●	●					
Legislators		●	●	●	●	●	●	●	●	●
Airport Sponsors		●	●	●	●	●	●	●		
Pilot/User Groups		●	●	●	●	●	●	●	●	●
Economic Development Partners		●	●	●	●	●	●	●	●	●
State, Regional, and Local Planners		●	●	●	●	●	●	●	●	●
Communities/ Public		●	●	●	●	●	●	●	●	●

LOCAL	STATE/REGION	FEDERAL
Airport Master Plans	Long Range Transportation Plans (LRTP)	National Plan of Integrated Airport Systems (NPIAS) Category and Role Changes
Airport Layout Plans	Comprehensive Plans	Terminal Area Forecast (TAF) Changes
Comprehensive Plans	Policy Plans	
Land Use and Zoning Ordinances	Freight Plans	
	Surface Transportation Plans	
	Other	

Section 3: Implementing

- Stakeholder or decision maker rollout
- Continuous planning efforts
- Integration with other modal plans
- … and more

What actions can you take to extend the lifespan of your SASP?

- Set a timeline for future system plan updates
- Maintain your inventory database
- Update system performance
- Conduct additional studies
- Implement Agency Recommendations

Appendices

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Appendices

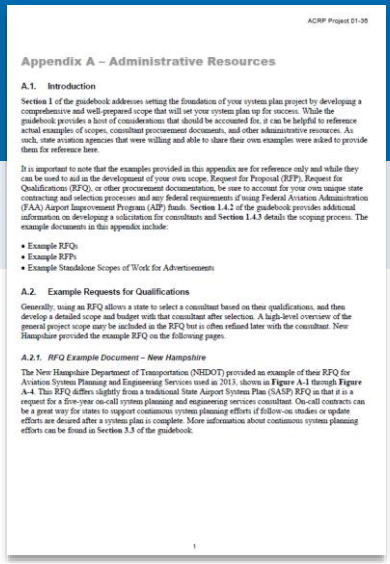
- Offer additional guidance, examples, and information to aid the user in scoping, developing, and implementing a SASP

- **Appendix A:** Administrative Resources
- **Appendix B:** Stakeholder Engagement Resources
- **Appendix C:** Content Resources
- **Appendix D:** Deliverable Resources
- **Appendix E:** Case Studies
- **Appendix F:** Supplemental AEIS Information

Let's take a closer look at each of these resources.

Appendices

Appendix A: Administrative Resources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Appendix A – Administrative Resources

A.1. Introduction

Section 1 of the guidebook addresses setting the foundation of your system plan project by developing a comprehensive and well-prepared scope that will set your system plan up for success. While the guidebook provides a host of considerations that should be accounted for, it can be helpful to reference actual examples of scopes, consultant procurement documents, and other administrative resources. As such, state aviation agencies that were willing and able to share their own examples were asked to provide them for reference here.

It is important to note that the examples provided in this appendix are for reference only and while they can be used to aid in the development of your own scope, Request for Proposal (RFP), Request for Qualifications (RFQ), or other procurement documentation, be sure to account for your own unique state contracting and selection processes and any federal requirements if using Federal Aviation Administration (FAA) Airport Improvement Program (AIP) funds. Section 1.4.2 of the guidebook provides additional information on developing a solicitation for consultants and Section 1.4.3 details the scoping process. The example documents in this appendix include:

- Example RFQs
- Example RFPs
- Example Standalone Scopes of Work for Advertisement

A.2. Example Requests for Qualifications

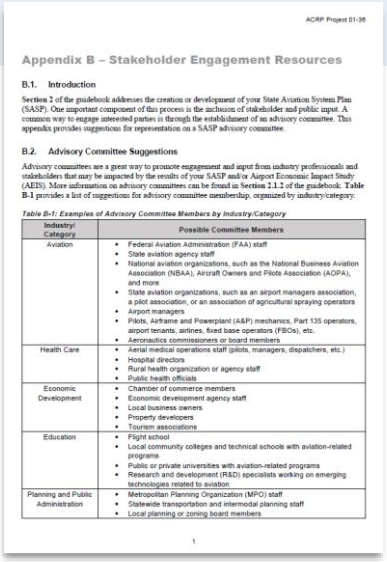
Generally, using an RFQ allows a state to select a consultant based on their qualifications, and then develop a detailed scope and budget with that consultant after selection. A high-level overview of the general project scope may be included in the RFQ but is often refined later with the consultant. New Hampshire provided the example RFQ on the following pages.

A.2.1. RFQ Example Document – New Hampshire

The New Hampshire Department of Transportation (NHDOT) provided an example of their RFQ for Aviation System Planning and Engineering Services used in 2013, shown in Figure A-1 through Figure A-4. This RFQ differs slightly from a traditional State Airport System Plan (SASP) RFQ in that it is a request for a five-year on-call system planning and engineering services consultant. On-call contracts can be a great way for states to support continuous system planning efforts if follow-on studies or update efforts are desired after a system plan is complete. More information about continuous system planning efforts can be found in Section 3.3 of the guidebook.

- Includes 70+ pages of real examples from state aviation agencies:
  - Example RFQs
  - Example RFPs
  - Example Scopes of Work

Appendix B: Stakeholder Engagement Resources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Appendix B – Stakeholder Engagement Resources

B.1. Introduction

Section 2 of the guidebook addresses the creation or development of your State Aviation System Plan (SASP). One important component of this process is the inclusion of stakeholder and public input. A common way to engage interested parties is through the establishment of an advisory committee. This appendix provides suggestions for representation on a SASP advisory committee.

B.2. Advisory Committee Suggestions

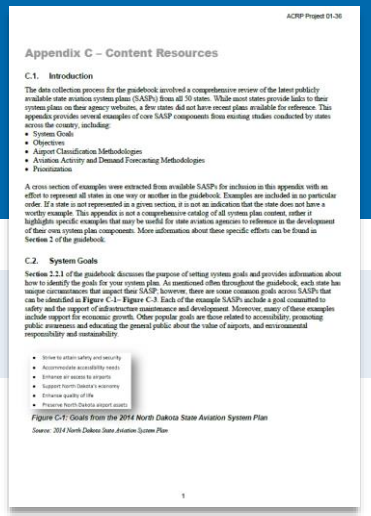
Advisory committees are a great way to promote engagement and input from industry professionals and stakeholders that may be impacted by the results of your SASP and/or Airport Economic Impact Study (AEIS). More information on advisory committees can be found in Section 2.1.2 of the guidebook. Table B-1 provides a list of suggestions for advisory committee membership, organized by industry/category.

Table B-1: Examples of Advisory Committee Members by Industry/Category

Industry/ Category	Possible Committee Members
Aviation	• Federal Aviation Administration (FAA) staff • State aviation agency staff • National aviation organizations, such as the National Business Aviation Association (NBAA), Aircraft Owners and Pilots Association (AOPA), and more • State aviation organizations, such as an airport managers association, a pilot association, or an association of agricultural spraying operators • Airport managers • Pilots, Airframe and Powerplant (A&P) mechanics, Part 135 operators, airport tenants, airlines, fixed base operators (FBOs), etc. • Aeronautics commissioners or board members
Health Care	• Aerial medical operations staff (pilots, managers, dispatchers, etc.) • Hospital directors • Rural health organization or agency staff • Public health officials
Economic Development	• Chamber of commerce members • Economic development agency staff • Local business owners • Property developers • Tourism associations
Education	• Flight school • Local community colleges and technical schools with aviation-related programs • Public or private universities with aviation-related programs • Research and development (R&D) specialists working on emerging technologies related to aviation
Planning and Public Administration	• Metropolitan Planning Organization (MPO) staff • Statewide transportation and intermodal planning staff • Local planning or zoning board members

- Offers suggestions for advisory committee members by industry:
  - Aviation
  - Health Care
  - Economic Development
  - Education
  - Planning and Public Administration
  - Public Safety

Appendices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Appendix C – Content Resources

C.1. Introduction

The data collection process for the guidebook involved a comprehensive review of the latest publicly available state aviation system plans (SASPs) from all 50 states. While most states provide links to their system plans on their agency websites, a few states did not have recent plans available for reference. This appendix provides several examples of core SASP components from existing studies conducted by states across the country, including:

- System Goals
- Objectives
- Airport Classification Methodologies
- Aviation Activity and Demand Forecasting Methodologies
- Prioritization

A cross section of examples were extracted from available SASPs for inclusion in this appendix with an effort to represent all states in one way or another in the guidebook. Examples are included in no particular order. If a state is not represented in a given section, it is not an indication that the state does not have a worthy example. This appendix is not a comprehensive catalog of all system plan content, rather it highlights specific examples that may be useful for state aviation agencies to reference in the development of their own system plan components. More information about these specific efforts can be found in Section 2 of the guidebook.

C.2. System Goals

Section 2.2.1 of the guidebook discusses the purpose of setting system goals and provides information about how to identify the goals for your system plan. As mentioned often throughout the guidebook, each state has unique circumstances that impact their SASP; however, there are some common goals across SASPs that can be identified in Figure C-1– Figure C-3. Each of the example SASPs include a goal committed to safety and the support of infrastructure maintenance and development. Moreover, many of these examples include support for economic growth. Other popular goals are those related to accessibility, promoting public awareness and educating the general public about the value of airports, and environmental responsibility and sustainability.

- Strive to attain safety and security
- Accommodate accessibility needs
- Enhance air access to airports
- Support North Dakota's economy
- Enhance quality of life
- Preserve North Dakota airport assets

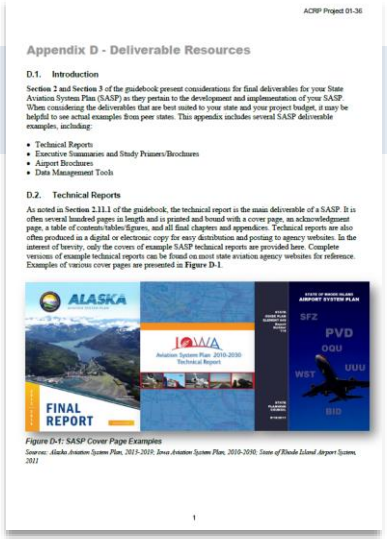
Figure C-1: Goals from the 2014 North Dakota State Aviation System Plan

Source: 2014 North Dakota State Aviation System Plan

Appendix C: Content Resources

Provides examples of key SASP components from various states:

- System Goals
- Objectives and Performance Measures
- Classification Methodologies
- Forecasting Methodologies
- Prioritization Models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Appendix D - Deliverable Resources

D.1. Introduction

Section 2 and Section 3 of the guidebook present considerations for final deliverables for your State Aviation System Plan (SASP) as they pertain to the development and implementation of your SASP. When considering the deliverables that are best suited to your state and your project budget, it may be helpful to see actual examples from peer states. This appendix includes several SASP deliverable examples, including:

- Technical Reports
- Executive Summaries and Study Primers/Brochures
- Airport Brochures
- Data Management Tools

D.2. Technical Reports

As noted in Section 2.11.1 of the guidebook, the technical report is the main deliverable of a SASP. It is often several hundred pages in length and is printed and bound with a cover page, an acknowledgment page, a table of contents/tables/figures, and all final chapters and appendices. Technical reports are also often produced in a digital or electronic copy for easy distribution and posting to agency websites. In the interest of brevity, only the covers of example SASP technical reports are provided here. Complete versions of example technical reports can be found on most state aviation agency websites for reference. Examples of various cover pages are presented in Figure D-1.

Figure D-1: SASP Cover Page Examples

Sources: Alaska Aviation System Plan, 2015-2019; Iowa Aviation System Plan, 2010-2030; State of Rhode Island Airport System, 2011

Appendix D: Deliverable Resources

Includes examples of deliverables:

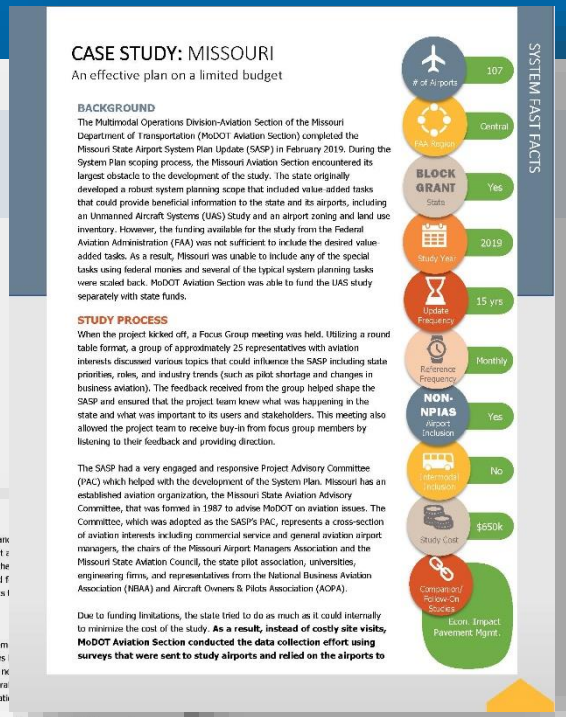
- Technical Reports
- Executive Summaries and Statewide Brochures
- Individual Airport Brochures or Primers
- Data Management Tools

Appendices

Appendix E – Case Studies

Offers candid insight from state agencies - challenges, solutions, advice

- States included:
  - Georgia,
  - Massachusetts
  - Missouri
  - North Dakota
  - Washington



CASE STUDY: MISSOURI

An effective plan on a limited budget

BACKGROUND

The Multimodal Operations Division-Aviation Section of the Missouri Department of Transportation (MoDOT Aviation Section) completed the Missouri State Airport System Plan Update (SASP) in February 2019. During the System Plan scoping process, the Missouri Aviation Section encountered its largest obstacle to the development of the study. The state originally developed a robust system planning scope that included value added tasks that could provide beneficial information to the state and its airports, including an Unmanned Aircraft Systems (UAS) Study and an airport zoning and land use inventory. However, the funding available for the study from the Federal Aviation Administration (FAA) was not sufficient to include the desired value-added tasks. As a result, Missouri was unable to include any of the special tasks using federal monies and several of the typical system planning tasks were scaled back. MoDOT Aviation Section was able to fund the UAS study separately with state funds.

STUDY PROCESS

When the project kicked off, a Focus Group meeting was held. Utilizing a round table format, a group of approximately 25 representatives with aviation interests discussed various topics that could influence the SASP including state priorities, roles, and industry trends (such as pilot shortage and changes in business aviation). The feedback received from the group helped shape the SASP and ensured that the project team knew what was happening in the state and what was important to its users and stakeholders. This meeting also allowed the project team to receive buy-in from focus group members by listening to their feedback and providing direction.

The SASP had a very engaged and responsive Project Advisory Committee (PAC) which helped with the development of the System Plan. Missouri has an established aviation organization, the Missouri State Aviation Advisory Committee, that was formed in 1987 to advise MoDOT on aviation issues. The Committee, which was adopted as the SASP's PAC, represents a cross-section of aviation interests including commercial service and general aviation airport managers, the chairs of the Missouri Airport Managers Association and the Missouri State Aviation Council, the state pilot association, universities, engineering firms, and representatives from the National Business Aviation Association (NBAA) and Aircraft Owners & Pilots Association (AOPA).

Due to funding limitations, the state tried to do as much as it could internally to minimize the cost of the study. **As a result, instead of costly site visits, MoDOT Aviation Section conducted the data collection effort using surveys that were sent to study airports and relied on the airports to**

SYSTEM FAST FACTS

# of Airports: 107

FAA Region: Central

BLOCK GRANT State: Yes

Study Year: 2019

Update Frequency: 15 yrs

Reference Frequency: Monthly

NON-NPIAS Airport Inclusion: Yes

Intermodal Inclusion: No

Study Cost: $650k

Completed Follow-On Studies: Econ. Impact, Pavement Mgmt.

complete them on their own. This required significant follow-up efforts (emails and staff. It was especially difficult to obtain the data needed from small airports without a non-National Plan of Integrated Airport Systems (NPIAS) airports. While ultimately the Aviation Section underestimated the effort needed to get the surveys completed and f have been a better way to gather the data by having someone sit down with airports t unanswered questions or misunderstandings of questions.

OUTCOMES OF THE SASP

The list of recommended projects developed during the SASP process to meet system associated with meeting the system needs are important to identify because it allows requests and because it provides a comprehensive picture of overall airport funding ne that the recommendations may not be realistic due to the amount of state and federa year. MoDOT Aviation Section now finds itself in a place of balancing airport expectati

One of the key positive takeaways from the study was the change in performance from the previous SASP. A comparison analysis was presented that showed increases in performance for nearly every objective, including runways, taxiways, weather reporting, hangars, tiedowns, and terminals. Analysis showed significant growth in most categories, which may encourage legislators to continue to fund the airports, because it demonstrates how MoDOT's investment and development efforts have improved the system.

The timing of the final deliverables and introduction of the study's results was done in conjunction with Missouri State Aviation Day, an annual event attended by many legislators as well as airports, pilots, and engineering firms. Several deliverables were presented and disseminated at that time resulting in a well-received rollout. The study's individual airport reports serve as both marketing and educational tools for the airports and their communities. They include a route map of instrument flight paths that occur at each airport, which visually conveys the breadth of service that the airports provide.

NEXT STEPS

Despite the limited funding available, MoDOT Aviation Section has a comprehensive SASP that will continue to help guide them through the next 20 years. The SASP provides guidance to all system airports and stakeholders on project prioritization and development. Paired with the state's economic impact study, the SASP underscores the importance of maintaining and developing the state's aviation system.

Q&A WITH THE DIRECTOR

Q: What was the most useful component(s) of your system plan?
A: Comprehensive list of prioritized airport needs and recommended infrastructure and services by airport role.

Q: What would you change about the scoping, development, and/or implementation of your plan?
A: During scoping, it would be helpful to have increased flexibility to allow add-ons as a part of the project scope. In terms of plan development, additional funding to allow for site visits and other outreach would be beneficial. On the implementation side, it would be advantageous to consider the likelihood of federal grants for expansion projects versus maintenance projects when making recommendations to set realistic expectations for airports.

Q: What advice would you give your fellow state directors on system planning?
A: If the study will be federally funded, make sure to coordinate with your FAA region/Airports District Office (ADO) about what is and is not eligible to set clear expectations and budget the study accordingly.

Appendices

Q&A WITH THE DIRECTOR

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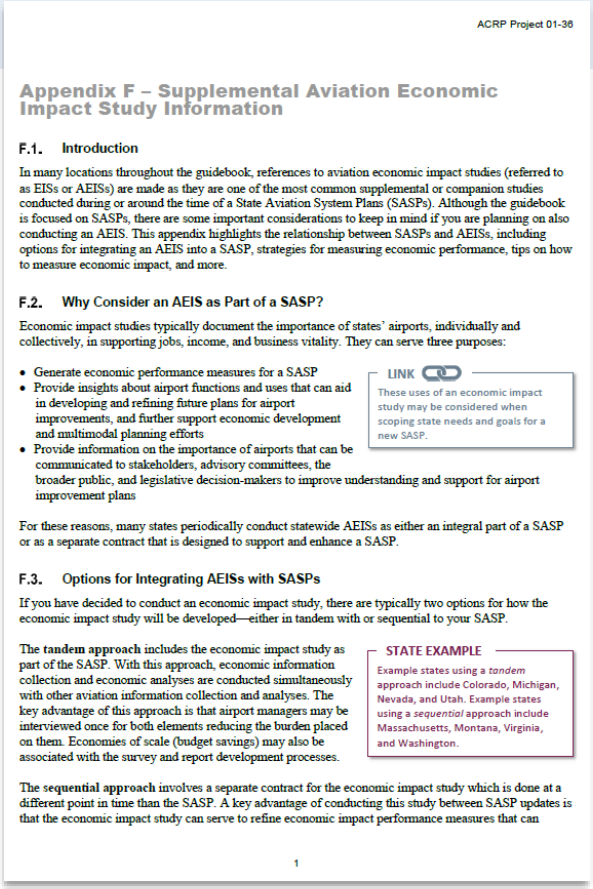
A: If the study will be federally funded, make sure to coordinate with your FAA region/Airports District Office (ADO) about what is and is not eligible to set clear expectations and budget the study accordingly.

Appendices

Appendix F: Supplemental AEIS Information

Provides insight and considerations for developing an AEIS concurrent with an AEIS.

- ✈ Why Consider an AEIS as part of a SASP
- ✈ Options for Integrating AEISs with SASPs
- ✈ Measures of Economic Impact and Performance
- ✈ Methods for Data Collection and Calculation
- ✈ Use and Communication of Economic Impact Results



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Appendix F – Supplemental Aviation Economic Impact Study Information

F.1. Introduction

In many locations throughout the guidebook, references to aviation economic impact studies (referred to as EISs or AEISs) are made as they are one of the most common supplemental or companion studies conducted during or around the time of a State Aviation System Plans (SASPs). Although the guidebook is focused on SASPs, there are some important considerations to keep in mind if you are planning on also conducting an AEIS. This appendix highlights the relationship between SASPs and AEISs, including options for integrating an AEIS into a SASP, strategies for measuring economic performance, tips on how to measure economic impact, and more.

F.2. Why Consider an AEIS as Part of a SASP?

Economic impact studies typically document the importance of states' airports, individually and collectively, in supporting jobs, income, and business vitality. They can serve three purposes:

- Generate economic performance measures for a SASP
- Provide insights about airport functions and uses that can aid in developing and refining future plans for airport improvements, and further support economic development and multimodal planning efforts
- Provide information on the importance of airports that can be communicated to stakeholders, advisory committees, the broader public, and legislative decision-makers to improve understanding and support for airport improvement plans

LINK

These uses of an economic impact study may be considered when scoping state needs and goals for a new SASP.

For these reasons, many states periodically conduct statewide AEISs as either an integral part of a SASP or as a separate contract that is designed to support and enhance a SASP.

F.3. Options for Integrating AEISs with SASPs

If you have decided to conduct an economic impact study, there are typically two options for how the economic impact study will be developed—either in tandem with or sequential to your SASP.

The **tandem approach** includes the economic impact study as part of the SASP. With this approach, economic information collection and economic analyses are conducted simultaneously with other aviation information collection and analyses. The key advantage of this approach is that airport managers may be interviewed once for both elements reducing the burden placed on them. Economies of scale (budget savings) may also be associated with the survey and report development processes.

STATE EXAMPLE

Example states using a *tandem* approach include Colorado, Michigan, Nevada, and Utah. Example states using a *sequential* approach include Massachusetts, Montana, Virginia, and Washington.

The **sequential approach** involves a separate contract for the economic impact study which is done at a different point in time than the SASP. A key advantage of conducting this study between SASP updates is that the economic impact study can serve to refine economic impact performance measures that can

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Questions?

Thank you for your time

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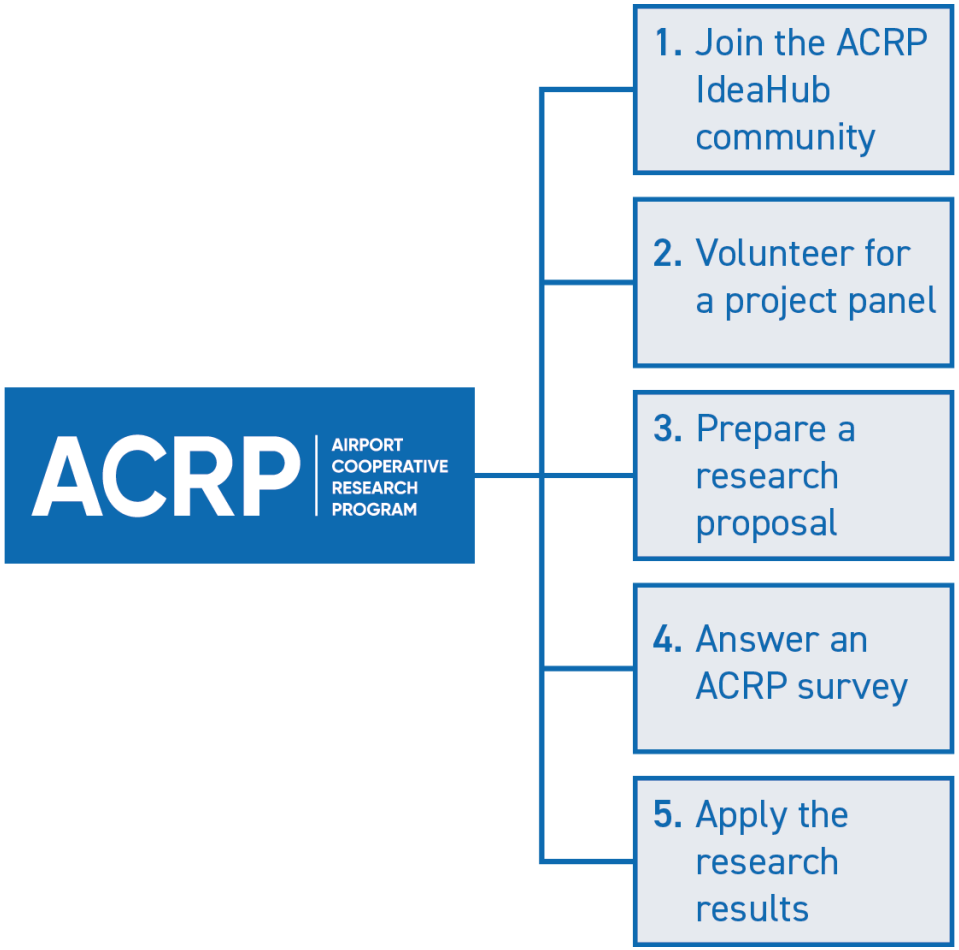

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